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David Claramunt

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EXAMINER

COLILLÀ, DANIEL JAMES

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 10/06/2006

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/607,873  
Filing Date: June 28, 2003  
Appellant(s): CLARAMUNT ET AL.

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Michael Dryja  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**

OCT 06 2006

**GROUP 2800**

This is in response to the appeal brief filed February 19, 2006 appealing from the Office action mailed July 14, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,411,324	CHRISTIANSEN et al.	6-2002
6,712,536	MIYANO	3-2004

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**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Christiansen et al. (US 6,411,324). As illustrated in Figure 2, Christiansen et al. teaches the claimed method. As outlined in column 1 lines 35-50, Christiansen et al. teaches advancing media in direction, and marking the media as the media advances. With respect to the broad requirement for sensing advancement, column 5 lines 29-52 of Christiansen et al. teach the step of one-dimensional optical sensing of advancement of the media while accommodating for lateral movement of the media. The applicants should note that in the process of sensing for alignment purposes, the apparatus of Christiansen et al. must inherently sense the advancement of the media. In other words, the apparatus cannot provide alignment without sensing an advancement of the media.

With respect to claim 2, column 3 line 66 to column 4 line 24 of Christiansen et al. teach the steps of marking the media as the media advances, which comprises marking the media with a mark size matching a field of view of an optical sensor used in the one-dimensional optical sensing of the advancement of the media that allows for the one-dimensional optical sensing of the advancement of the media while accommodating for the lateral movement of the media.

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With respect to claims 3 and 4, as shown in Figures 3A and 3B, Christiansen et al. teaches the step of marking an irregular pattern on the media over a plurality of tracks in a second direction perpendicular to the first. For example, Figure 3A shows marking 302 in a first direction, as well as marking patterns at a top track and a bottom track of the page, these marking patterns irregular at least with respect to each other. These markings may also be considered to be irregular with respect to subsequent markings on other sheets of media.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christiansen et al. (US 6,411,324) in view of Miyano (US 6,712,536). As outlined in the above rejection to claim 1, Christiansen et al. teaches all the claimed method steps except that the alignment marks are one-dimensional. With respect to claims 5 and 6, Miyano teaches an arrangement similar to that of Christiansen et al., the method of Miyano also teaching adjusting printing based on the detection of an alignment mark. See Abstract. Column 5 lines 9-11 of Miyano teaches the obviousness in using various types of alignment marks, including "roughened" marks formed by etching, scratching, and the like. To one of ordinary skill in the art, it would have been obvious to include roughened marks, as taught by Miyano, in the method of Christiansen et al., in order to enhance optical sensing of the marks.

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With respect to claim 5, the applicants should note that by etching the marks of Christiansen et al., as taught by Miyano, Christiansen et al. and Miyano teach the plurality of valleys followed by a space as recited. For example, an etching of the mark at the bottom of the page in Figure 3A would result in the production of a plurality of valleys, followed by a space devoid of a valley. With respect to claims 7 and 8, Figure 3 of the primary reference Christiansen et al., teaches marking the media across a width with one-dimensional marks, and not "roughened" marks as required. As stated above, column 5 lines 9-11 of Miyano teaches the obviousness in using various types of alignment marks, including "roughened" marks formed by etching, scratching, and the like. To one of ordinary skill in the art, it would have been obvious to include roughened marks, as taught by Miyano, in the method of Christiansen et al., in order to enhance optical sensing of the marks. With respect to the requirement for "a width of the media," the applicants should note that this does not require an "entire" width of the media.

#### **(10) Response to Argument**

##### **Claim 1 -The only Claim of Issue**

For the purposes of this present appeal, the examiner will address claim 1 only since only this claim was argued. Furthermore, the appellant states on page 4 of the brief that, "[T]he issue of patentability of claims 1-8 insofar as the present appeal is concerned rises and falls on Whether Christiansen particularly anticipates the claimed invention of claim 1."

Claim 1 Rejection is Proper

Claim 1 is properly rejected under 35 U.S.C. 102(b) as being anticipated by Christiansen et al. (US 6,411,324).

On pages 5-10 of the appeal brief, the applicants argues that, "Christiansen does not explicitly disclose sensing of media advancement, as to which the claim is limited." The Examiner concedes that Christiansen et al. does not explicitly disclose the sensing of media advancement, however it is the Examiner's position that Christiansen et al. inherently teaches the step of sensing media advancement.

On pages 5 and 10-14 of the appeal brief, the appellant argue that, "Christiansen does not *inherently* disclose sensing of media advancement, as to which the claim is limited. The Examiner respectfully disagrees. As stated above in the rejection statement, the Christiansen et al. apparatus cannot provide alignment without sensing an advancement of the media.

As illustrated in Figures 1 and 2, and as outlined in columns 7 and 8, Christiansen et al. teaches a method of feeding media through an apparatus, printing calibration marks 240 on the media 200, scanning the calibration marks, and adjusting a print position, based on the results of the scanning step. As shown in Figure 2, and as outlined in column 5 lines 30-43, Christiansen et al. teaches an optical scanner 290 that scans the calibration marks. Based on this disclosure, it is evident that the scanner inherently detects media advancement because the scanner cannot detect the calibration marks without the media being advanced. In other words, the scanner detects the calibration marks when, and only when, the media is advanced to a position to be detected. Consequently, in the process of detecting the calibration marks, the scanner inherently detects that the media has been advanced.

On pages 10-11 of the appeal brief, the appellant argue that inherency may not be established by probabilities, as established by case law. The appellant further argues that, a lack of inherency can be proved by providing examples in which, Christiansen et al. senses for alignment without sensing for advancement. On pages 11-13 of the brief, the appellant outlines three examples of situations that allegedly show the Christiansen et al. apparatus sensing for alignment, without sensing advancement.

The Examiner is not convinced by the appellant's examples. It is the Examiner's position that none of the appellant's examples depict the proper operation of the Christiansen et al. apparatus and method. For instance, in the appellant's first example as outlined on page 12 of the brief, the appellant state, "When detecting marks at the top edge of the media, for instance, you don't have to advance the media at all." In the other two examples the appellant make similar claims that media advancement is not necessary in the sensing of alignment. The Examiner respectfully disagrees. Advancement is absolutely necessary in the Christiansen method and apparatus.

According to the Christiansen et al. disclosure, in the process of sensing the calibration marks, the scanner inherently senses movement because the media must be advanced to the scanner. As outlined in column 3 line 66 to column 4 line 25, and as shown schematically in Figure 2, Christiansen et al. teaches the step of printing calibration marks on the media, using print engine 210. As shown in Figure 2, a scanner 290 for detecting the marks is located downstream of the print engine. Consequently, according to Christiansen et al., the media must be advanced from the print engine to the scanner 290, if the marks are to be detected. Therefore the scanner can only detect the marks if the media is advanced, thereby inherently detecting the



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advancement of the media. In fact, the only possible scenario in which advancement would not be necessary, would be if the print engine and the scanner were in an identical location, a scenario that contradicts the teaching of Christiansen et al.

It should be noted that while the examiner applied art to the entirety of claim 1, the claim includes substantial functional language. This functional language, "to allow for one-dimensional optical sensing of advancement of the media while accommodating for lateral movement of the media," does not further limit the method claim to patentably distinguish the prior art. Stated differently, method claim 1 only requires; advancing media, and marking the media. Clearly these steps are taught by the applied reference.

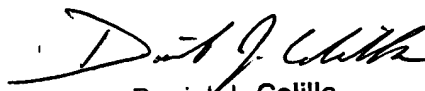
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

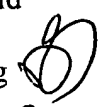
Respectfully submitted,

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